

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

1. (Currently amended) A method including

receiving a user request for an object maintained at a server;

selecting a cluster device from a plurality of cluster devices to perform an operation on the object according to a classification of the plurality of cluster devices based on a performance criterion, wherein each of the plurality of cluster devices is a separate device from the server;

upon a request from the server, performing an operation on data associated with said object the operation at [[a]] the cluster device, said cluster device being a separate device from said server, said operation including accessing said object at said server and determining a result of scanning processing said object at said cluster device; and

conditionally allowing access to said object in response to said user request based on said result.

2. (Previously presented) A method as in claim 1, further including conditioning said operation on a feature of said object, said feature including at least one of: a file name, a file type, a filesystem share.

3. (Previously presented) A method as in claim 1, further including conditioning said operation on an intersection of

a feature of said object, said feature including at least one of: a file name, a file type, a filesystem share; and

a type of access associated with said user request;
wherein said operation is performed for an intersection of at least one said feature and at least one type of access.

4. (Previously presented) A method as in claim 1, further including persistently recording said result of said operation in association with said object.

5. (Canceled).

6. (Original) A method as in claim 1, wherein said operation includes a plurality of processes, each one process being performed at a separate cluster device.

7. (Original) A method as in claim 1, wherein said operation includes at least one of: virus scanning, encryption or decryption, compression or decompression.

8. (Original) A method as in claim 1, wherein said operation includes
setting a timeout at said server;
resetting said timeout in response to receiving a response from said cluster device to a protocol message asking if said cluster device is still working on said operation; and
determining that said operation is successful in response to receiving a response from said cluster device before said timeout expires.

9. (Previously presented) A method as in claim 1, further including assigning an access type to said cluster device, said access type allowing said cluster device to perform said operation notwithstanding user locks associated with said object.

10. (Previously presented) A method as in claim 9, further including restricting said access type in response to at least one of: a selected set of network addresses for said cluster device, a selected set of domain names for said cluster device, a selected set of user names at said cluster device, a selected set of interfaces between said server and said cluster device.

11. (Previously presented) A method as in claim 1, including
at a first time, recording said result of said operation for said object; and
at a second time, conditioning said operation on said result.

12. (Original) A method as in claim 11, wherein said result includes at least one of: a time when said operation was performed, remedial measures taken in response to said operation, whether access was allowed in response to said operation.

13. (Previously presented) A method as in claim 1, further including conditioning said operation on a type of access associated with said user request.

14. (Original) A method as in claim 13, wherein said operation is performed before allowing access to said object for requests including read access.

15. (Original) A method as in claim 13, wherein said operation is performed after allowing access to said object for requests including write access.

16-41. (Cancelled)

42. (Currently amended) An apparatus comprising:

a server maintaining a set of objects, the server having a network interface for receiving a request to access at least one of the set of objects; and

a plurality of cluster devices, device, separate from the server, from which the server selects a cluster device according to a classification of the plurality of cluster devices based on a performance criterion to perform, upon a request from the server, an operation on data associated with said at least one of the set of objects, the operation including accessing said at least one of the set of objects and determining a result of scanning processing said at least one of the set of objects at the cluster device, said result being used by the server to determine whether to allow access to said at least one of the set of objects in response to the request, wherein each of the plurality of cluster devices is a separate device from the server.

43. (Previously presented) The apparatus of claim 42, further comprising determining whether to perform the operation, wherein whether to perform the operation is conditioned on a feature of said at least one of the set of objects, said feature including at least one of: a file name, a file type, a filesystem share.

44. (Previously presented) The apparatus of claim 42, further comprising determining whether to perform the operation, wherein whether to perform the operation is conditioned on an intersection of

a feature of said at least one of the set of objects, said feature including at least one of: a file name, a file type, a filesystem share; and

a type of access associated with said request;

wherein said operation is performed for an intersection of at least one said feature and at least one type of access.

45. (Previously presented) The apparatus of claim 42, further comprising a database, wherein said result is persistently recorded in association with said at least one of the set of objects in the database.

46. (Canceled).

47. (Previously presented) The apparatus of claim 42, wherein the operation includes a plurality of processes, each process being performed at a separate cluster device.

48. (Previously presented) The apparatus of claim 42, wherein the operation includes at least one of: virus scanning, encryption or decryption, compression or decompression.

49. (Previously presented) The apparatus of claim 42, wherein the operation includes setting a timeout at the server;

resetting the timeout in response to receiving a response from the cluster device to a protocol message asking if the cluster device is still working on the operation; and determining that the operation is successful in response to receiving a response from the cluster device before the timeout expires.

50. (Previously presented) The apparatus of claim 42, wherein the cluster device has an access type, the access type allowing the cluster device to perform the operation notwithstanding user locks associated with said at least one of the set of objects.

51. (Previously presented) The apparatus of claim 50, wherein the access type is restricted in response to at least one of: a selected set of network addresses for the cluster device, a selected set of domain names for the cluster device, a selected set of user names at the cluster device, a selected set of interfaces between the server and the cluster device.

52. (Previously presented) The apparatus of claim 45, wherein a second operation on said at least one of the set of objects is conditioned on the result.

53. (Previously presented) The apparatus of claim 42, wherein said result includes at least one of: a time when said operation was performed, remedial measures taken in response to said operation, whether access was allowed in response to said operation.

54. (Previously presented) The apparatus of claim 42, wherein the operation is conditioned on a type of access associated with the request.

55. (Previously presented) The apparatus of claim 42, wherein the operation is performed before allowing access to said at least one of the set of objects in response to the request, the request being a read access request.

56. (Previously presented) The apparatus of claim 42, wherein the operation is performed after allowing access to said at least one of the set of objects in response to the request, the request being a write access request.

57. (Currently amended) A machine-readable medium having sequences of instructions stored therein which, when executed by a processor of a processing system, cause the processor to perform a process comprising:

receiving a user request for an object maintained on the processing system;

selecting a cluster device from a plurality of cluster devices to perform an operation on the object according to a classification of the plurality of cluster devices based on a performance criterion, wherein each of the plurality of cluster devices is a separate device from the processing system;

requesting [[a]] the cluster device, ~~separate from the processing system~~, to perform the operation ~~an operation on data associated with the object~~, the operation including accessing the object at the processing system and determining a result of scanning processing the object at the cluster device; and

conditionally allowing access to the object in response to the user request based on the result.

58. (Previously presented) The machine-readable medium of claim 57, wherein the process further comprises conditioning the operation on a feature of the object, the feature including at least one of: a file name, a file type, a filesystem share.

59. (Previously presented) The machine-readable medium of claim 57, wherein the process further comprises conditioning the operation on an intersection of a feature of the object, the feature including at least one of: a file name, a file type, a filesystem share; and a type of access associated with the user request; wherein the operation is performed for an intersection of at least one feature and at least one type of access.

60. (Previously presented) The machine-readable medium of claim 57, wherein the process further comprises persistently recording the result of the operation in association with the object.

61. (Canceled).

62. (Previously presented) The machine-readable medium of claim 57, wherein the operation includes a plurality of processes, each one process being performed at a separate cluster device.

63. (Previously presented) The machine-readable medium of claim 57, wherein the operation includes at least one of: virus scanning, encryption or decryption, compression or decompression.

64. (Previously presented) The machine-readable medium of claim 57, wherein the operation includes

setting a timeout at the server;

resetting the timeout in response to receiving a response from the cluster device to a protocol message asking if the cluster device is still working on the operation; and determining that the operation is successful in response to receiving a response from the cluster device before the timeout expires.

65. (Previously presented) The machine-readable medium of claim 57, wherein the cluster device having an access type, the access type allowing the cluster device to perform the operation notwithstanding user locks associated with the object.

66. (Previously presented) The machine-readable medium of claim 65, wherein the access type is restricted in response to at least one of: a selected set of network addresses for the cluster device, a selected set of domain names for the cluster device, a selected set of user names at the cluster device, a selected set of interfaces between the server and the cluster device.

67. (Previously presented) The machine-readable medium of claim 60, wherein a second operation on said at least one of the set of objects is conditioned on the result.

68. (Previously presented) The machine-readable medium of claim 57, wherein the result includes at least one of: a time when the operation was performed, remedial measures taken in response to the operation, whether access was allowed in response to the operation.

69. (Previously presented) The machine-readable medium of claim 57, wherein the process further comprising conditioning the operation on a type of access associated with the user request.

70. (Previously presented) The machine-readable medium of claim 57, wherein the operation is performed before allowing access to the object for requests including read access.

71. (Previously presented) The machine-readable medium of claim 57, wherein the operation is performed after allowing access to the object for requests including write access.

72. (New) The method of claim 1, wherein said processing comprises scanning.

73. (New) The apparatus of claim 42, wherein said processing comprises scanning.

74. (New) The machine-readable medium of claim 57, wherein said processing comprises scanning.